

Remarks

The Examiner's reconsideration of the application is requested in view of the amendments above and comments which follow.

The Examiner has commented that claim 1 is considered to be a product-by-process claim. The Examiner's comments are set forth in the second paragraph on page 4 of the Office Action and in the paragraph bridging pages 7 and 8. With the changes made to claim 1, it is submitted that it is clear that the claim is not a product-by-process.

The Examiner continues the same rejection of the application employing Ferrante, and has also cited U.S. Patent No. 5,944,197 to Baltzer. Reconsideration is requested.

Turning first to Baltzer, Baltzer discloses a woven wire screen cloth for screening drilling mud, with rectangular openings between warp and chute (weft) filaments. Column 6 lines 9 to 10 discloses the possibility of using warp and weft filaments of different diameters, but no details are given, and there is no disclosure of cloths with square openings with larger diameter warp filaments, as specified in our claim 18. Figure 4 shows a multilayer screen assembly with two screens 52, 54 and a support screen 56 bonded to a perforated metal plate 58. Screens 52 and 54 are shown with the longer side of the rectangular openings parallel to the longer side of the screen, i.e. warp filaments 12, 14, 16 and 18 extend along the length of the screen, which is the opposite orientation to that specified in all of the claims. There is also no disclosure in Baltzer of a support with an array of rectangular openings, as specified in claims 2 and 3.

Baltzer is thus fully consistent with the prior art acknowledged in the present specification on the issue of orientation of a rectangular mesh cloth in a rectangular frame, with prior art screens having the warp wires aligned with the length of the rectangular openings, and aligned with the direction of solids flow over the screen in use, e.g. as discussed in the first paragraph on page 5 and the paragraph bridging pages 10 and 11 of the present specification. Baltzer is thus no more pertinent than the prior art of which applicant is already aware, and applicant believes that the claims currently under consideration are clearly allowable over this prior art.

The Examiner is maintaining the previous rejections on the basis of previously cited US 2,425,235 (Ferrante), but applicant does not think these are reasonable. Ferrante concerns a filter, particularly an air filter e.g. for a window screen, comprising a sheet of screening material 12 in

the form of a woven wire mesh of warp and weft wires 13, 14 covered with flocking material 18. Figure 1 shows a window screen 10 comprising a rectangular frame 11 with screening material sheet 12 secured thereto. Ferrante is silent about the orientation of the warp and weft wires in relation to the frame 11. If the mesh shown in Figure 1 is in the same orientation as the meshes in Figures 2 and 3, then the warp wires 13 extend along the length of the rectangular frame (i.e. in the opposite orientation to that specified in our claims). There is certainly no specific disclosure of the particular orientation of wires that is critical to our invention.

Ferrante also does not concern a screen for use in a vibrating machine, even though there is reference in column 2 line 12 to possible screening of liquids, and the Ferrante filter would be quite unsuited to use in a vibrating screen machine. For example, the flocking cover on the Ferrante mesh would become rapidly clogged with fine particles and would quickly become ineffective in screening of drilling mud. Further, contrary to the Examiner's assertion, there is no disclosure in Ferrante of a support with rectangular openings or windows in appropriate orientation, as specified in claims 2 and 3. The Examiner has referred to windows 15 in this connection (at page 4, paragraph 3 and page 8, paragraph 2 of the action), but these are the openings between the warp and the weft wires, not openings in a support.

The Examiner's rejections thus seem to be based on some misunderstandings and misinterpretations of the teachings of the prior art. In addition, applicant's previously presented arguments appear to have been completely ignored.

The claims currently under consideration are clearly distinguished over the prior art. The benefit of greater resistance to stresses in the middle of the longer sides of the rectangular frame that arises with applicant's orientation, as explained in the last response, is not found in the prior art. This stems from the realization that the elongate openings in a rectangular screen mesh can be oriented with the major dimension at right angles to the direction of flow, i.e. that the weft wires can be aligned with the direction of flow, contrary to the prior practice referred to above. This means that standardized screens can be made much more efficiently and cheaply using standard 48 inch wide mesh, as explained on page 5 and pages 10 to 12 of applicant's specification. This second benefit is mainly of relevance to screens with rectangular openings, as defined in claim 1.

Before the present invention, the perceived wisdom in the art was that screens with

rectangular openings should be oriented with the major dimension of the openings parallel to the direction of flow of solids, for optimum solids conveyance and deblinding, as explained in the first paragraph on page 5 and in the paragraph bridging pages 10 and 11 of applicant's specification. Given this prior practice and prejudice, altering the orientation of the cloth is not a simple change that would be made by one skilled in the art, as the Examiner asserts e.g. on page 3 in the last paragraph and on page 7 in the second paragraph of the action. This change is not an arbitrary change, and the novel configuration of the present invention is significant.

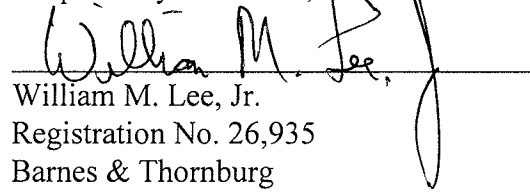
New claim 24 has been added to round out the protection for the invention of the present application. The claim is directed to the vibrating machine including the rectangular mesh of claim 1, where the weft wires of the cloth are aligned with the direction of the solid's flow over the screen, in order to distinguish ever further from Ferrante. It is submitted that the claim is clearly allowable.

The Examiner's further and favorable reconsideration of the application is therefore urged. It is submitted that without question the claims distinguish from the prior art, whether taken alone or in combination, and are allowable thereover.

As this response is being submitted during the fourth month following the Examiner's Office Action, an appropriate petition for extension of time is submitted herewith.

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Respectfully submitted,


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